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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,095	04/08/2004	Koji Fujiwara	1248-0712PUS1	7125
2292 7590 02/14/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER SITTA, GRANT	
			ART UNIT	PAPER NUMBER
			2609	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	02/14/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

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## Office Action Summary

**Application No.**

10/820,095

**Applicant(s)**

FUJIWARA ET AL.

**Examiner**

Grant D. Sitta

**Art Unit**

2609

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 4/08/2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 4/08/2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-5, 7, 9-12 and 14 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Russell et al. (U.S. 6,703,570), hereinafter, Russell.

3. As to claim 1, Russell shows the method as claimed in Figures 1-3 and corresponding text, as:

An input pen enabling a pen input on a display panel (col.3-4, lines 50-5); an infrared transmission means and an ultrasonic transmission means on the pen (col. 2, lines 15-45);

A infrared receive means that comprises at least two ultrasonic receivers and a infrared (IR) transmitter or receiver (fig. 1(18)(20); col. 4, lines 5-15) also, producing a signal when it is transmitting a ultrasonic frame by simultaneously transmitting a infrared

synchronization signal to the base (Fig. 4 (62)(66) col. 6, lines 5-15); and a means for when the tip of the pen is in contact with the display panel (col. 2, lines 50-55);

A display control means computing a contact position of the pen tip on the display (col. 3-4, lines 65-30) containing a time delay such that the pen can signal when it is transmitting a ultrasonic frame by simultaneously transmitting a infrared synchronization signal to the base (Fig. 4 col. 6, lines 5-15); with at least two ultrasonic reception means (Fig. 1, (18), col. 4, lines 5-20).

A pen pressure sensor on the pen for detecting when the pen is in contact with the display (col. 2, lines 50-65) and control means that controls the infrared transmission varying according to the pen pressure exerted on the pen tip (col. 2, lines 45-65).

4. As to claim 2, Russell teaches varying the pulse width of the signal generated by the pen infrared device in accordance with the pen pressure exerted on the tip of the pen (col. 2, lines 45-65, col. 6, lines 41-55, also see Fig. 5).

5. As to claims 3 and 7, Russell shows in one embodiment:

A sequence input means, includes sequence input means enabling input of a series of pen pressure levels as sorted by frequency of use (col. 6, lines 40-55, "power adjust routine").

The pen pressure information infrared control means controls the IR transmissions to transmit the IR signal with pulse widths which grow longer in descending sequence of frequency of use of individual pen pressure levels as sorted through the sequence input means (col. 6, lines 40-45) With Russell, the power

generated by the IR will be dynamic (col. 6, lines 40-45) with more commonly used pressure levels being assigned short pulse widths by the power adjustment routine in Fig. 5.

6. As to claim 4, Russell teaches pen pressure information infrared transmission control means controls the infrared transmission means to transmit at least two infrared pulses an interval between which changes in accordance with the pen pressure (col. 5, lines 42-50).

7. As to claim 5, Russell teaches the pen pressure information infrared transmission control means outputs multiple infrared signal pulses in accordance with the pen pressure (col. 5, lines 42-50, sending "at least some" IR pulses from the transducers to determine how hard a person is pressing down on the pen.)

8. As to claim 9, Russell shows the method as claimed in Figures 1-3 and corresponding text:

An infrared transmitter transmitting an infrared signal for communicating with an infrared receiver associated with display device (col 2., lines 45-55);

An ultrasonic transmitter for communicating with an ultrasonic receiver associated with a base (col. 2, lines 14-30);

A pen pressure sensor sensing pen pressure against a surface and producing a first output in response to a first sensed pressure level and a second output in response to a second sensed pressure level (col. 2, 50-60);

A controller for controlling the infrared transmitter to produce a first signal when said first pressure level is detected and a second signal when said second pressure level is detected (col. 2, lines 50-60) The two outputs could be an on/off output.

A controller for controlling the infrared transmitting to produce a first signal when said first pressure level is detected and a second signal when the second pressure level is detected (Fig 2, col. 5, lines 32-60).

9. As to claims 10 and 11, see the limitations taught by Russell in claim 1 further comprising:

A controller for determining the location of the input pen on the display device based on infrared and ultrasonic signals received by the display device from the input pen (Fig 1, see col. 2, 15-30, col. 6, lines 41-55, also see Fig. 5).

10. As to claim 12, Russell teaches varying the pulse width of the signal generated by the pen infrared device in accordance with the pen pressure exerted on the tip of the pen (col. 2, lines 50-65, col. 6, lines 41-55, also see Fig. 5).

11. As to claim 14, the same rejection as claim 2 above.

### ***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

14. Claims 6, 8, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Russell in view of Stefik et al. (U.S. 4,814,552) hereinafter, Stefik.

15. Relative to claim 6 and 15, Russell teaches all of the claim limitations of claims 1-5 and 11. However, Russell fails to teach using the infrared signal to represent bit data.

16. Stefik teaches and shows two different methods of encoding data into a serial bit stream (Fig 3A and 3B, col. 4, lines 52-60). In one method he shows Pulse Code modulation and the benefits of the low pulse duration on power consumption (col.4, lines 52-60).

17. Therefore, it would have been obvious to one skilled in the art to apply the teachings of Russell as modified by Stefik. Stefik shows how to encode the bit stream into the IR signal and the benefits of encoding with this method, such to conserve current drain.

18. As to claim 8, Russell teaches the limitations of a power adjustment routine as taught in claim 3. Moreover, Stefik teaches encoding methods that minimize pulse duration to conserve batteries (Fig. 3 A and 3B. col. 4, lines 52-60). It would have been

obvious to one skilled in the art to combine the methods of Russell with the teachings of Stefik to produce an input device that transmits pressure levels over IR with a power adjust routine.

19. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Russell in view of DeBuisser et al. (U.S. 5,717,168) hereinafter, DeBuisser.

20. Russell teaches the limitations of claim 3. However, fails to teach associating each of the pen pressure levels with a pulse width

21. DeBuisser teaches associating each of the pen pressure levels with a table (col. 11, lines 44-60)

22. As for claim 13, It would have been obvious to one skilled in the art to modify Russell with the teachings of DeBuisser by placing the pen pressure levels in the table one can associate pulses widths with pressure levels and use a power adjusting routine to determine the frequently used levels. And adjust the power accordingly, to reduce power usage and allow for longer use time.



***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure US patent; 4,654,648, 6,470,341, 2004/0032399, 6,104,387, 6,628,270, 5,594,215

***Inquiry***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Grant D. Sitta whose telephone number is 571-270-1542. The examiner can normally be reached M-Th 7:30-5:00.

If attempts to reach examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on 571-270-1550. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to USPTO Customer Service Representative or access to the automated information system whose telephone number is 1-800-786-9119 or 571-272-1000.

  
AMARE MENGISTU  
SUPERVISORY PATENT EXAMINER

Grant D. Sitta

January 18, 2007